the mortality from tuberculosis lies in selection—probably, in the first instance at least, not a selection enforced by legal penalties, but one due to the presence of an enlightened public opinion which will regard as morally reprehensible the fertile marriages of phthisical types."

We are glad to end our review of Dr. Reid's book with an extract such as this, with the sentiment of which we are in complete agreement.

W. C. D. W.

Doncaster, L., M.A. *Heredity in the Light of Recent Research.* Cambridge University Press; 1910; pp. vii. and 140; price 1s. net.

THE relation between Heredity and Variation presents something of a paradox. Variation implies incomplete and imperfect inheritance, for if the resemblance between parent and child were complete and perfect there could be no variation. Yet if there were no variation there could be no inheritance or at any rate no possibility of recognising it. The study of inheritance is the study of the inheritance of variations, so that any logically arranged treatise on heredity must begin with the consideration of variation. This order has been observed by Mr. Doncaster, who attacks the question of variation immediately after a short introductory chapter in which the problems of inheritance are defined and their bearings on the theory of evolution and on social questions are indicated. He describes different types of variation—continuous and discontinuous—,the statistical method of studying and measuring variability, and discusses its causes and the action of the environment on the body and germ cells, Chapter IV. deals with the biometrical study of inheritance; a method of measuring the correlation between father and son with regard to such a character as stature is briefly described and Galton's Law of Ancestral Inheritance is discussed. Mendelism forms the subject-matter of Chapters V. and VI. In Chapter VII. some disputed questions are discussed. These include some objections to the universal applicability of the Mendelian theory and the ever-present problem of the inheritance or non-inheritance of acquired characters. With regard to the latter the author sums up in the following words, with which the majority of biologists will agree: "On the whole, the hypothesis of the inheritance of acquired characters must be regarded as 'not proven,' and our increasing knowledge of the behaviour of germinal characters makes it improbable that it can be a factor of great importance in the constitution of the individual or to the course of evolution." Telegony and the theory of maternal impressions are described and dismissed; they owe their origin to that ignorance of the nature of evidence which is perhaps the most widely diffused form of ignorance. The chapter on Heredity in Man should prove of especial interest to students of eugenics; it concludes the principal part of the work. Two appendices are added, the first an historical summary of theories of heredity and the second on the material basis of inheritance. There is also a useful list of literature, a sufficient glossary of technical terms and an index.

We can strongly recommend this work to everyone beginning the study of heredity and can safely assert that people familiar with the subject will derive benefit by reading it. Considering that almost all points of importance raised by recent research are adequately dealt with, the book is wonderfully short and easily followed. The print, paper and illustrations are also admirable.

E. H. J. S.

Davenport, G. C. and C. B. *Heredity of Skin Pigment in Man. American Naturalist;* 1910.

IN this paper Dr. Davenport and his wife discuss some data collected by them and bearing upon the question of the inheritance of skin pigmentation in whites and negroes. The whites were divided into three classes, brunet,

blond, and intermediate, but owing to the roughness of the method by which the data were collected it was not found possible to carry the analysis very far. On the whole blond tends to breed true and when mated with brunet or intermediate gives about 50 per cent. of blonds. From brunets and intermediates bred together, or with one another, about 25 per cent. of the offspring were blonds. Probably more than one factor is concerned, and it is unlikely that an effective scheme of inheritance will be devised until more critically collected data are at the disposal of the investigator.

Some records of albinism among whites have been brought together and from them the authors are disposed to conclude that this condition behaves as a simple recessive to the normal pigmentation. Whether this conclusion be eventually substantiated or not by future work it is probable that the inheritance of albinism in man is less simple than in other animals, and is complicated through its association with certain diseases and in other ways.

What will be for some the most interesting part of the paper deals with the inheritance of pigmentation in the crosses between negroes and whites. The data show that the offspring of mulattos may sometimes be indistinguishable from whites, and sometimes very much darker than either parent. Such observations point to the pigmentation differences depending upon segregable factors, and are opposed to the view of a "blended" inheritance for these characters such as has been often maintained.

R. C. PUNNETT.

Judd, J. W., C.B., F.R.S. *The Coming of Evolution.* Publishers: Cambridge University Press; price 1s. net.

THERE are few persons, perhaps, better fitted to tell the story of this most fascinating epoch in scientific discovery than Professor Judd. The friend of Darwin, of Lyell, and of Huxley, he traces, with a modest simplicity and yet with a skill that are as charming as they are wholly admirable, the progress and victory of the principles of evolution. Professor Judd shows how the theory of continuity, championed all too ably by Hutton and Playfair against the cast-iron theology of Werner, Sedgwick and Buckland, stood discredited at the beginning of the nineteenth century; how Lyell and Poulett Thomson won for it if not scientific recognition at any rate scientific respect; and how Darwin established it as the essential concomitant of future scientific progress. Professor Judd insists, as we believe rightly, on the importance of Lyell in the history of evolution; for it was mainly through his geological work that Darwin was brought to see the value of uniformitarian principles. He gives us some fascinating glimpses of Darwin himself,—glimpses all the more welcome because they enhance our appreciation of his personal magnetism. His book is an interesting contribution to our knowledge of the time; and in some ways not unworthy of a place by the great "Life" as a picture of an epoch of which we are only beginning to appreciate the profound significance.

We have two minor criticisms to offer. We do not think Professor Judd's objection to the antithesis of "evolution" and "creation" is well founded. "Creation" so used has a very special and almost technical sense, and such usage is sanctioned by long and honoured tradition. Professor Judd quotes the phrase of Darwin, "Heaven defend me from Lamarckian nonsense" as though it was applied by him to all Lamarck's work. It is perhaps only fair to the great French zoologist to remember that Darwin used it only of the theory of progression through the purposive activity of the animals themselves. As Professor Judd himself says, Darwin admired the remarkable insight Lamarck displayed; and when we consider the condition of cytology at that time his admiration is easily intelligible. However this may be, it does not alter the fact that this is a book not only to be read but also to be remembered as in the highest degree worthy of recollection.

H. J. L.